

STRUCTURE PROVIDING ENHANCED SELF-PINNING FOR CPP GMR AND TUNNEL VALVE HEADS

ABSTRACT

A magnetic head having improved self-pinning. The head includes a sensor having an antiparallel (AP) pinned layer structure, where the AP pinned layer structure includes at least two pinned layers having magnetic moments that are self-pinned antiparallel to each other, the pinned layers being separated by an AP coupling layer. A pair of compression layers are positioned towards opposite track edges of the sensor. The compression layers provide compressive stress to the sensor.